

550,235

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



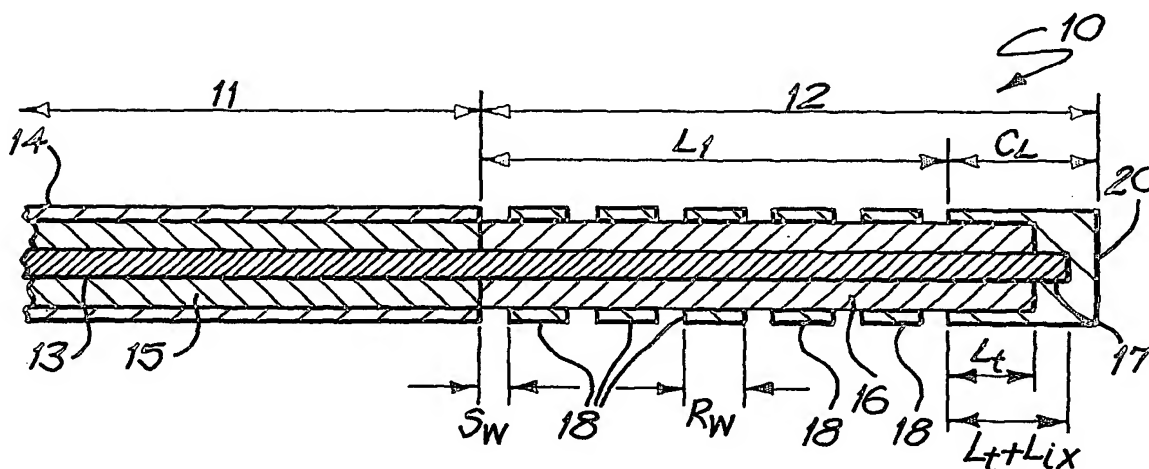
(43) International Publication Date
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number
WO 2004/084748 A1

- (51) International Patent Classification⁷: **A61B 18/18**, A61N 5/02
- (74) Agent: **F B RICE & CO**; 605 Darling Street, Balmain, NSW 2041 (AU).
- (21) International Application Number: PCT/AU2004/000392
- (22) International Filing Date: 26 March 2004 (26.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 2003901390 26 March 2003 (26.03.2003) AU
- (71) Applicant (for all designated States except US): **UNIVERSITY OF TECHNOLOGY, SYDNEY** [AU/AU]; 1 Broadway, Broadway, NSW 2004 (AU).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **CHIU, Heng-Mao** [AU/AU]; Unit 199, 398 Pitt Street, Sydney, NSW 2000 (AU). **SANAGAVARAPU, Ananda, Mohan** [AU/AU]; 31 Arcadian Circuit, Carlingford, NSW 2118 (AU). **THOMAS, Stuart, Phillip** [AU/AU]; 150 Beecroft Road, Cheltenham, NSW 2119 (AU). **ROSS, David, Leslie** [—/AU]; 41 Cheltenham Road, Cheltenham, NSW 2119 (AU). **GUY, Duncan, James, Ramsay** [AU/AU]; 84 Grange Road, Glenhaven, NSW 2156 (AU).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A MICROWAVE ANTENNA FOR MEDICAL ABLATION



(57) Abstract: This invention concerns a microwave antenna (10) for cardiac ablation. In particular it concerns such an antenna suitable for catheter ablation. The antenna comprises a transmission line (11) having an inner conductor (13), an outer conductor (14) and a dielectric insulator (15) to provide insulation between the inner and outer conductor. An energy emitting antenna element (12) is located at the distal end of the transmission line. The antenna element has an inner conductor (17) electrically coupled to the inner conductor of the transmission line, and a sheath of dielectric insulator (16) around the inner conductor continuous with the insulator of the transmission line. At its distal end there is a hollow metallic cap (20) electrically connected to the inner conductor and surrounding a length of the insulator. In a further aspect it concerns a method for making such an antenna.

WO 2004/084748 A1